

WHAT IS CLAIMED IS:

1. A method for networking a central controller with a  
5 first group of one or more remote devices operating in accordance  
with a first protocol and a second group of one or more remote  
devices operating in accordance with a second protocol,  
comprising:

10 identifying transmissions from said first group and said  
second group of remote devices;

routing transmissions from said first group of remote  
devices to a first processor operating in accordance with said  
first protocol within said central controller; and

15 routing transmissions from said second group of remote  
devices to a second processor operating in accordance with said  
second protocol within said central controller.

20 2. The method of claim 1 further comprising embedding a  
first identifier in transmissions from said first group of remote  
devices and embedding a second identifier in transmissions from  
said second group of remote devices, wherein transmission from  
said first and second groups of remote devices are identified in  
accordance with said first and second identifiers.

25 3. The method of claim 2 wherein said transmissions from  
said first and second group of remote devices comprise bandwidth  
requests transmitted in a request contention area.

30 4. The method of claim 3 further comprising transmitting  
bandwidth grants to said first and second group of remote devices  
in response to requests for bandwidth.

35 5. The method of claim 1 further comprising assigning one  
or more time slots during which said first group and second group  
of remote devices may transmit information to said central

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controller and wherein said central controller identifies  
transmission from said first group and second group of remote  
5 devices in accordance with said assigned time slots.

6. The method of claim 1 further comprising creating a  
first multicast group comprising said first group of remote  
devices, creating a second multicast group comprising said second  
10 group of remote devices and transmitting group messages from said  
central controller to said first group and second group of remote  
devices in accordance with said first and second multicast  
groups.

15 7. The method of claim 1 further comprising receiving  
communications for said first group and second group of remote  
devices in accordance with addresses of said first and second  
remote devices, routing communications for said first group of  
remote devices to said first processor within said central  
20 controller, routing communications for said second group of  
remote devices to said second processor within said central  
controller and transmitting processed communications to addressed  
remote devices.

25 8. A method for networking a cable modem termination  
system with a first group of one or more cable modems operating  
in accordance with a proprietary protocol and a second group of  
one or more cable modems operating in accordance with DOCSIS  
protocol, comprising:

30 identifying transmissions from said first group and second  
group of cable modems;

routing transmissions from said first group of cable modems  
to a first processor that operates in accordance with said  
proprietary protocol within said cable modem termination system;

35 and

5 routing transmissions from said second group of cable modems to a second processor that operates in accordance with the DOCSIS protocol within said cable modem termination system.

10 9. The method of claim 8 further comprising embedding a first identifier in transmissions from said first group of cable modems and embedding a second identifier in transmissions from said second group of cable modems, wherein transmission from said first group and second group of cable modems are identified in accordance with said first and second identifiers.

15 10. The method of claim 9 wherein said transmissions from said first and second group of cable modems comprise bandwidth requests transmitted in a request contention area.

20 11. The method of claim 10 further comprising transmitting bandwidth grants to said first and second group of cable modems in response to said requests for bandwidth.

25 12. The method of claim 8 further comprising assigning one or more time slots during which said first group and second group of cable modems may transmit information to said cable modem termination system and wherein said cable modem termination system identifies transmission from said first group and second group of cable modems in accordance with said assigned timeslots.

30 13. The method of claim 8 further comprising creating a first multicast group comprising said first group of cable modems, creating a second multicast group comprising said second group of cable modems and transmitting group messages from said cable modem termination system to said first group and second group of cable modems in accordance with said first and second multicast groups.

14. The method of claim 8 further comprising receiving  
communications for said first group and second group of cable  
5 modems in accordance with addresses of said first group and  
second group of cable modems, routing communications for said  
first group of cable modems to said first processor within said  
cable modem termination system, routing communications for said  
10 second group of cable modems to said second processor within said  
cable modem termination system and transmitting processed  
communications to addressed cable modems.

15. A two way communication system comprising:

15 a plurality of remote devices wherein a first group of one  
or more remote devices communicate with a local host in  
accordance with a first protocol and a second group of one or  
more remote devices communicate with said local host in  
accordance with a second protocol,

20 wherein said local host comprises a protocol processor for  
identifying transmissions from said first and second groups of  
remote devices, and wherein said protocol processor routes  
transmissions from said first group of remote device to a first  
processor operating in accordance with the first protocol and  
25 wherein said protocol processor routes transmissions from said  
second group of remote devices to a second processor operating  
in accordance with the second protocol.

16. The two way communication system of claim 15 wherein  
said local host further comprises a central processor for  
30 scheduling transmission from said first and second group of  
remote devices.

17. The two way communication system of claim 15 wherein  
said local host further comprises an upstream demodulator for  
35 receiving transmission from said first and second group of remote

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devices and a downstream modulator for transmitting information to said first and second group of remote devices.

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18. The two way communication system of claim 17 wherein each of said remote devices comprise a downstream demodulator for receiving transmission from said local host and an upstream modulator for transmitting information to said local host.

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19. The two way communication system of claim 18 wherein each of said remote devices further comprise a media access controller for embedding service identifiers in each upstream bandwidth request, wherein said media access controller embeds a first service identifier for remote devices that operate in accordance with said first protocol and a second service identifier for remote devices that operate in accordance with said second protocol.

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20. A cable television system, comprising:

a plurality of cable modems wherein a first group of one or more cable modems communicate with a cable modem termination system in accordance with a proprietary protocol and a second group of one or more cable modems communicate with said cable modem termination system in accordance with DOCSIS protocol,

25 wherein said cable modem termination system comprises a protocol processor for identifying transmissions from said first and second groups of cable modems, and wherein said protocol processor routes transmissions from said first group of cable modems to a first processor operating in accordance with the proprietary protocol and wherein said protocol processor routes transmissions from said second group of cable modems to a second processor operating in accordance with the DOCSIS protocol.

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21. The cable television system of claim 20 wherein said  
transmissions from said first and second groups of cable modems  
5 comprise bandwidth requests transmitted in a request contention  
area.

22. The cable television system of claim 21 wherein said  
cable modem termination system further comprises a central  
10 processor for scheduling transmission from said first and second  
group of cable modems in response to said bandwidth requests.

23. The cable television system of claim 20 wherein said  
cable modem termination system further comprises an upstream  
15 demodulator for receiving transmission from said first and second  
group of cable modems and a downstream modulator for transmitting  
information to said first and second group of cable modems.

24. The cable television system of claim 23 wherein each  
20 of said cable modems comprise a downstream demodulator for  
receiving transmission from said cable modem termination system  
and an upstream modulator for transmitting information to said  
cable modem termination system.

25. The cable television system of claim 24 wherein each  
of said cable modems further comprise a media access controller  
for embedding service identifiers in each upstream bandwidth  
request, wherein said media access controller embeds a first  
30 service identifier for cable modems that operate in accordance  
with said proprietary protocol and a second service identifier  
for cable modems that operate in accordance with said DOCSIS  
protocol.